Exploitation Algorithm Development and Validation
Quarterly Progress Report: September 2019 - November 2019

Contract Number:	N00014-19-C-2032
Project Title:	Exploitation Algorithm Development and Validation
Total Contract Amount:	$4,999,701.00
Total Funded Amount:	$ (b) (4)
Controlling DoD Office Name:	Office of Naval Research
Controlling DoD Office Address:	875 N. Randolph St., Arlington VA 22217
Performing Organization Name:	MDA Information Systems
Performing Organization Address:	1200 Joe Hall Drive, Ypsilanti MI 48197
Period Covered in this Report:	1 September 2019 – 30 November 2019

Costs Incurred in this Quarter:	$ (b) (4)
Costs Incurred to Date:	$ (b) (4)
Remaining Funding:	$ (b) (4)

Schedule of Near Term Deliverables:

Quarterly Project Review	**09/05/2019 (Complete)**
Quarterly Project Review	12/05/2019

Anticipated Problems and Actions Required:

(b)(4)

Progress and Major Accomplishments

Figure 1 shows the costs for this period. The blue line is the amount funded to date; the green line is actual cumulative costs to date.

(b) (4)

Figure 1: Costs to date.

The general categories of work described in the SOW are:

- Improvement to existing algorithms to address capability gaps discovered during operational use;
- Development of new algorithms to extract additional environmental and obstacle information from an expanded set of remote sensing systems;
- Implementation of the algorithms onto airborne platforms and incorporation into their ground station systems;
- Application of deep learning solutions for improved algorithm performance;
- Development and validation of image simulations and models to support algorithm evaluation; and
- Support to sponsor and operational units in utilizing the algorithms to attain mission goals.

We will describe work performed during this quarterly period for each of these general categories below.

Algorithm Improvements

(b)(4)

(b)(4)

(b)(4)

(b)(4)

New Algorithm Development

(b)(4)

Airborne and Ground System Implementation

(b)(4)

Deep Learning Solutions

(b)(4)

Image Simulation and Modeling

(b)(4)

(b)(4)

Operational Support

(b)(4)